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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) 2003P00282WOUS
Application Number 10/550,219	Filed May 19, 2006	
First Named Inventor Frank Joerdens et al.		
Art Unit 1796	Examiner Shane Fang	
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p>		
<p>I am the</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> Applicant/Inventor <input type="checkbox"/> Assignee of record of the entire interest. See 37 C.F.R. § 3.71. Statement under 37 C.F.R. § 3.73(b) is enclosed. (Form PTO/SB/96) <input checked="" type="checkbox"/> Attorney or agent of record </div> <div style="width: 45%; text-align: right;"> <u>James E. Howard/</u> Signature <u>James E. Howard</u> Typed or printed name <u>252-639-7644</u> Requester's telephone number <u>June 15, 2010</u> Date </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;"> <input type="checkbox"/> Attorney or agent acting under 37CFR 1.34. Registration number if acting under 37 C.F.R. § 1.34 _____ </div> <div style="width: 45%; text-align: right;"> <u>39,715</u> (Reg. No.) </div> </div> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.*</p> <p><input checked="" type="checkbox"/> *Total of <u>1</u> form/s are submitted.</p>		

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**STATEMENT OF ARGUMENTS IN SUPPORT OF
PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Claims 21-38 and 41-42 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Kalleder (WO01/23190) as evidenced by Yoshida (5,667,888) and Levasil (H.C. Stark product list, 09/2006). Further, claims 39-40 were rejected under 35 U.S.C. §103(a) as allegedly being obvious in view of Kalleder as evidenced by Yoshida and Levasil. The Final Rejection includes the errors that follow:

Error #1 Kalleder, as evidenced by Yoshida and Levasil, does not teach, inter alia, an enamel-free paste that is fully hydrolyzed and fully condensed as recited in independent claims 21, 30 and 38. Since the cited references do not teach all the limitation of the claimed invention, a prima facie case of anticipation has not been established.

The claimed inventions are directed to fully hydrolyzed and fully condensed enamel-free pastes. Claims 21, 30 and 38 are independent. Claim 21 is directed to an enamel-free paste, claim 30 is directed to a method for the production of the enamel free paste, and claim 38 is directed to a silkscreen process for the application of decorative prints on glass by applying an enamel-free paste. Each one of the independent claims refers to, inter alia, an enamel-free paste with a matrix based upon a Si-polymer that can be obtained by the hydrolysis and condensation of at least one silane of a general formula $R_xSi(OR')_{4-x}$ with at least one polysiloxane of general formula $[R_2SiO]_y$, or $R_3Si(O-SiR_2)_y-O-SiR_3$, respectively, wherein said radicals R can independently be alkyl, aryl, arylalkyl, alkylaryl or H, said radicals R' can independently be H, methyl, ethyl, n- or i-propyl, n-, iso-, sec- or tert-butyl, x represents 0 or 1 (for the first silane), x represents 0, 1, 2, 3, or 4, and y represents a whole number, which is at least 2 and can be approximately infinite, wherein said paste additionally includes a high-boiling organic solvent with a boiling point of 100°C. or above, and a pigment as the solvent, but contains no alcohol with a boiling point substantially below 100°C.

Appellants' enamel-free pastes do not suffer from the disadvantages of conventional enamel pastes. As stated in page 2, lines 21-33 of Appellants' Specification, enamel pastes in a classical enamel pattern

“require temperatures of partially more than 500 for the burning-in process, however, in order to enable the glass flow of the frit. At these kinds of temperatures, however, substantial pre-stressing losses of the glass can occur. At the same time the aggressive glass frit microcracks inherent in manufacturing are enlarged, which are located in the glass surface. Both lead to a dramatic loss of

stability of the pre-stressed Borofloat glass on one hand, and increase the risk of the glass breaking at the temperature usually present in pyrolysis ovens, or with impact forces, on the other hand. Furthermore, such classical enamel patterns provide an insufficient bond to the surface of Borofloat glass.”

Enamel-free pastes of the claimed invention, in contrast to the prior art, do not suffer from these disadvantages.

As an added advantage, the independent claims are directed to fully hydrolyzed and condensed enamel-free paste that are stable and suitable for silk screening process and suitable for opaquely imprinting glass and which do not emit harmful emissions. See, Appellants’ Specification, paragraph spanning pages 7 and 8, and original claims.

The Examiner commits clear errors in alleging claims 21-38 and 41-42 to be anticipated by Kalleder as evidenced by Yoshida and Levasil because these references are not directed to fully hydrolyzed and fully condensed enamel-free pastes. To reject claims under 35 U.S.C. §102(b), a prima facie case of anticipation must be established. See M.P.E.P. 2131. One requirement to establish the prima facie case of anticipation is that “each and every limitation as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Id.* Kalleder, as evidenced by Yoshida and Levasil, fails to do so. For example, independent claim 21 is directed to a fully hydrolyzed and condensed enamel-free paste, independent claim 30 is directed to a method for the production of a fully hydrolyzed and condensed enamel-free paste, and claim 38 is directed to a silkscreen process for the application of decorative prints on glass by applying a fully hydrolyzed and condensed enamel-free paste. The limitation involving a fully hydrolyzed and condensed enamel-free paste is not disclosed in Kalleder.

As stated above, each pending claim (including claims 21-38 and 41-42) refers to an enamel free paste that is 100% hydrolyzed and condensed. This is because all of the independent claims recite, as a limitation, an enamel-free paste with no alcohol with a boiling point substantially below 100°C. Since a by-product of hydrolysis and polycondensation is alcohol, this indicates that the claimed inventions set forth in independent claims 21, 30 and 38, and claims dependent thereon (i.e., all the claims), are directed to a paste with complete hydrolysis and complete condensation.

In contrast, Kalleder does not teach, explicitly or implicitly, a fully hydrolyzed and condensed enamel-free paste. For example, Kalleder is directed to a priming paste which has

partial hydrolysis and partial polycondensation of the hydrolysable compound. See columns 2 and 3 of Kallerder. Kallerder states that the degree of condensation is, for example, 20-80%, preferably 40-60%. In contrast, each of the pending claims refers to an enamel-free paste with no alcohol with a boiling point substantially below 100°C. Since the pending claims refer to complete hydrolysis and condensation and Kallerder teaches partial condensation the claimed invention is not anticipated by Kallerder.

In the final Office Action, the Examiner, in maintaining the rejection, has taken the position that the claimed invention “fails to claim 100% degree of condensation of the hydrolysis plus condensation.” See, final Office Action, paragraph spanning pages 5 and 6. Appellants respectfully disagree and note that, as stated above, since the claims recite an enamel-free paste with no alcohol with a boiling point substantially below 100°C, one of ordinary skill in the art would understand that since alcohol is a condensation and hydrolysis by-product, a claim reciting no alcohol would be understood to mean that condensation and hydrolysis is complete.

The Examiner also cited Levasil for describing silica sol and Yoshida for referring to terpineol as a thickener. We note that these points do not cure Kallerder’s failure to disclose an enamel free paste that is 100% hydrolyzed and condensed.

For at least the above-stated reasons, independent claims 21, 30 and 38 and claims dependent thereon (i.e., claims 21-42) are not anticipated by Kallerder as evidenced by Yoshida and Levasil. The withdrawal of this anticipation rejection is respectfully requested.

Error #2 Kallerder, as evidenced by Yoshida and Levasil, does not teach or render obvious an enamel-free paste that is fully hydrolyzed and fully condensed as recited in claims 39-40. Since a combination of the cited references does not teach all the limitation of the claimed invention, a prima facie case of obviousness has not been established. Furthermore, the primary reference, Kallerder teaches against a an enamel-free paste that is fully hydrolyzed and fully condensed. This is an additional factor indicating that claims 39-40 are not obvious in view of Kallerder, as evidenced by Yoshida and Levasil.

The Examiner commits clear errors in alleging claims 39-40 to be unpatentable over Kallerder as evidenced by Yoshida and Levasil. To reject claims under 35 U.S.C. §103(a), a prima facie case of obviousness must be established. See M.P.E.P. 2142. One requirement to establish the prima facie case of obviousness is that the prior art references, when combined, must teach or suggest all claim limitations. See M.P.E.P. 2142; M.P.E.P. 706.02(j). Kallerder as evidenced by Yoshida and Levasil fails to do so. For example, as discussed above for the anticipation rejection, independent claim 38 is directed to a silkscreen process for the application of decorative prints on glass by applying a fully hydrolyzed and condensed enamel-free paste.

The limitations of independent claim 38 are incorporated into dependent claims 39-40. These limitations, involving a fully hydrolyzed and condensed enamel-free paste, are not disclosed or rendered obvious in Kalleder.

As discussed above for the anticipation rejection, Kalleder teaches partial condensation of 20-80%. In fact, Kalleder states that it is preferable that the condensation is between 40% to 60%. See Kalleder, columns 2 and 3. Significantly, Kalleder fails to teach or suggest complete hydrolysis and condensation - a limitation of independent claim 38 and dependent claims 39-40. In fact, by teaching that partial hydrolysis and partial polycondensation are preferable, Kalleder teaches away from the claimed invention directed to complete hydrolysis and condensation. The addition of Levasil and Yoshida does not cure the defects of Kalleder because they are also silent on the point of complete hydrolysis and condensation. Thus, because a combination of the cited references (Kalleder, Yoshida and Levasil) fails to disclose or render obvious the limitation of complete hydrolysis and condensation, an obviousness rejection is improper.

The Examiner also used an improper standard in maintaining the obviousness rejection in view of Appellants argument. In the final Office Action, the Examiner maintained the rejection by stating that Kalleder shows that “the removal of ethanol by product is carried out via rotary evaporator and roll mill, and the ethanol would be inherently lower than 5%.” See, final Office Action, paragraph spanning pages 5 and 6. This is an improper standard. Claims 39-40, because of their dependency on claim 38, is directed to an enamel-free paste with no alcohol with a boiling point of substantially below 100°C. Appellants note that ethanol is just one of many alcohols with a boiling point substantially below 100°C. Appellants disagree with the Examiner’s position because even if Kalleder disclosed one alcohol (ethanol) being below 5%, it cannot be interpreted as Kalleder disclosing that all alcohols are below 5%. Furthermore, below 5% as allegedly disclosed by Kalleder is not the same as the pending claims’ limitation of “no alcohol.” Therefore, even if the Examiner’s statement is correct in interpreting Kalleder as showing less than 5%, it still does not render the claimed invention involving “no alcohol” obvious.

For the reasons stated above, claims 39-40 are not obvious in view of the cited references and the withdrawal of this rejection is respectfully requested.

Also, for the reasons stated above, the Final Rejection should be withdrawn and the Application passed to allowance.